CLAIMS

1. An elongate flexible catheter tip comprising:

a longitudinal axis extending between a proximal tip end and a distal tip end; and

a corrugated region located between the proximal tip end and the distal tip end.

2. The elongate flexible tip of claim 1, wherein the elongate flexible tip comprises a tube member that defines a lumen.

3. The elongate flexible tip of claim 1, further comprising a lumen extending longitudinally throughout the elongate flexible tip body.

4. The elongate flexible tip of claim 1, further comprising a rounded distal end.

5. An elongate flexible catheter tip according to claims 1, 2, 3 or 4, wherein the proximal tip end is adjacently attached to an inner distal end of a dilation catheter, the dilation catheter comprising:

an elongate outer body comprising a longitudinal axis extending between an outer proximal end and an outer distal end;

an elongate inner body, comprising:

a proximal region located within the outer body and extending between the outer proximal end and the outer distal end,

a distal region extending past the outer distal end and comprising the inner distal end, and

an inner lumen contained within the inner body;

an outer lumen defined by the outer body and the inner body; and

a balloon comprising:

a proximal balloon leg attached to the outer distal end;

a distal balloon leg attached to a distal end of the dilation catheter; and

a balloon cavity defined by the proximal balloon leg and the distal balloon leg and in fluid communication with the outer lumen.

6. The elongate flexible catheter tip of claim 5, wherein:

the proximal tip end is attached to the inner distal end at a tip-end attachment;

the distal balloon leg is attached across the tip-end attachment; and

the distal tip end comprises a rounded distal end.

7. The elongate flexible catheter tip of claim 5, wherein:

the proximal tip end is attached to the inner distal end at a tip-end attachment;

the distal balloon leg is attached to the distal region, proximal to the tip-end attachment; and

the distal tip end comprises a rounded distal end.

8. The elongate flexible catheter tip of claim 5, wherein:

the elongate inner body comprises a braided coil reinforcing the elongate inner body;

the inner distal end is integral with the elongate flexible tip;

the distal balloon leg is attached to the distal region, proximal to the corrugated region; and

the distal tip end comprises a rounded distal end.

9. The elongate flexible catheter tip claim 8, wherein:

the braided coil is of uniform tightness, throughout the elongate inner body.

10. The elongate flexible catheter tip of claim 8, wherein:

the braided coil is of varying tightness throughout the elongate inner body.

11. The elongate flexible catheter tip of claim 5, wherein:

the distal balloon leg is attached to the inner distal end, providing a distal bonding region, wherein the distal bonding region has a distal face circumscribing the inner distal end;

the proximal tip end is attached to the distal face; and

the distal tip end comprises a rounded distal end.

12. The elongate flexible catheter tip of claim 5, wherein:

the distal balloon leg is attached to the distal region;

the elongate inner body comprises an inner material and an outer material, wherein:

the outer material has a lower durometer than the inner material;

the outer material extends distally beyond the inner material and is integral with the tip;

the distal tip end comprises a rounded distal end.

13. The elongate flexible catheter tip of claim 5, wherein:

the distal balloon leg is attached to the distal region, such that the distal region extends beyond the balloon leg, comprising an external mounting shoulder;

the flexible tip is attached to the external mounting shoulder; and

the distal tip end comprises a rounded distal end.

14. The elongate flexible catheter tip of claim 5, wherein:

the distal balloon leg is attached adjacent to the inner distal end and the proximal end of the flexible tip.

15. The elongate flexible catheter tip of claim 1, wherein a tip lumen is defined by the elongate flexible catheter tip, the tip lumen being aligned with a wire guide lumen and the proximal tip end is adjacently attached to a distal body end of a dilation catheter, the dilation catheter comprising:

a longitudinal axis extending between a proximal body end and the distal body end;

an inflation lumen and the wire guide lumen, wherein the inflation lumen and the wire guide lumen are parallel and are defined by the elongate body;

an intermediate region positioned between the proximal body end and the distal body end; and

a balloon comprising:

a proximal balloon leg attached to the intermediate region;

a distal balloon leg adjacently attached to the distal body end; and

a balloon cavity defined by the proximal balloon leg and the distal balloon leg, and in fluid communication with the inflation lumen.

16. An elongate flexible catheter tip according to claims 1, 2, 3 or 4, wherein the elongate flexible tip comprises a material selected from the group consisting of nylon, polyether-block co-polyamide polymers, polyethylene, polyvinyl chloride, polystyrene, silicon co-polymer, polyolefin, polyurethane and combinations thereof.

17. The elongate flexible catheter tip of claim 15, wherein:

the proximal tip end is adjacently attached to the distal body end forming a tip-end attachment;

the distal balloon leg is adjacently attached to the distal body end, the proximal tip end, and the tip-end attachment; and

the distal tip end is integral with a rounded distal end.

18. The elongate flexible catheter tip of claim 15, wherein:

the proximal tip end is adjacently attached to the distal body end forming a tip-end attachment;

the distal balloon leg is adjacently attached to the distal body end; and

the distal tip end is integral with a rounded distal end.

19. The elongate flexible catheter tip of claim 15, wherein:

the distal balloon leg is adjacently attached to the distal body end, forming a distal bonding region, wherein the distal bonding region has a distal face that circumscribes the wire guide lumen;

the proximal tip end is adjacently attached to the distal body end and the distal balloon leg via the distal face; and

the distal tip end is integral with a rounded distal end.

20. The elongate flexible catheter tip of claim 15, wherein:

the distal balloon leg is adjacently attached to the distal body end, forming an external mounting shoulder;

the proximal tip end is adjacently attached to distal body end and the distal balloon leg via the external mounting shoulder; and

the distal tip end comprises a rounded distal end.

21. The elongate flexible catheter tip of claim 15, wherein:

the distal balloon leg is adjacently attached to the distal body end and the proximal tip end.

22. An elongate flexible catheter tip as in claims 1, 2, 3 or 4, wherein the corrugated region comprises an accordion corrugation.

23. The elongate flexible catheter tip of claim 22, wherein the corrugated region further comprises a plurality of ridges interspersed with a plurality of grooves.

24. The elongate flexible catheter tip of claim 22, wherein the corrugated region further comprises a plurality of grooves.

25. The elongate flexible catheter tip of claim 22, wherein the corrugated region further comprises a plurality of ridges.

26. The elongate flexible catheter tip of claim 23, wherein the wall thickness is substantially the same throughout the tube member, including the corrugated region.

27. The elongate flexible catheter tip of claim 26, wherein the ridges have an outer diameter that is greater than an outer diameter of the tube member and the grooves have an inner diameter that is smaller than an inner diameter of the tube member.

28. The elongate flexible catheter tip of claim 26, wherein the ridges have an outer diameter that is greater than an outer diameter of the tube member and the grooves have an inner diameter that is substantially the same as an inner diameter of the tube member.

29. An elongate flexible catheter tip as in claims 1, 2, 3 or 4, wherein the corrugated region comprises a helical corrugation.